

WEEKLY EDITION  
OF THETHOMAS G. NEWMAN,  
EDITOR.

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## APICULTURAL NEWS ITEMS.

## EDITORIAL AND SELECTED.

Don't bring "strife" into the JOURNAL,  
Lay "anger" and "spite" aside;  
But at this temple's gate to drop  
The "strife" of the world outside.  
Don't "vent" any personal quarrels,  
Or bring their discordant gloom;  
You may argue with words of "honey,"  
But for "stings" there is no room.

It is at the quilting-"bee" where you  
hear the "stinging" remark.

The value of the honey imported into  
Great Britain during the month of June,  
1885, was \$6,848, or about \$32,500.00.

The Indiana State Fair and Exposition,  
will be held in Indianapolis, during the  
week commencing Sept. 28, 1885.

Good-nature, like a bee, collects honey  
from every herb. Ill-nature, like a spider,  
sucks poison from the sweetest flower.

The Illinois State Fair will be held in  
Chicago during the week commencing Mon-  
day, Sept. 14, 1885, and promises many  
attractions.

When a Bee alights on a person as it  
would on a tree or fence, let it alone and  
it will in a moment fly away. It is very sel-  
dom that they will sting, except when  
defending their homes.

In England the temperature has been  
low since July 1, with a profusion of show-  
ers accompanied with strong withering  
winds, the average night temperature being  
40°, and the day 60°, giving a mean of 50°—  
too low for honey secretion or gathering.  
White clover gave a good yield of honey  
during June, but since that there has been  
no honey gathered.

When an energetic organization,  
such as the Bee-Keepers' National Union  
should be, enters actively and with deter-  
mination into anything—its influence is felt  
far beyond its numerical strength. Men  
often fight more upon the courage of others  
than upon their own. Those who have not  
yet "joined the Union army," are invited to  
read the article on page 533, entitled, "Is  
the 'Union' of Value or Not?" and then act  
as becometh a generation upon which rests  
the defense of "our chosen pursuit."

**Detecting Glucose.**—The Rev. J. G.  
Teter, in the *Bee-Keepers' Magazine*, gives  
the following test:

A cheap and easy way to test the presence  
of the poorer grades of glucose in honey is  
to put some of it into a cup of tea made  
strong. If it is heavily adulterated with the  
poisonous compound found in glucose, it  
will turn black almost like ink. Another  
test is to pour alcohol and this poisonous  
compound together. Pure honey and pure  
alcohol will unite, but pure alcohol and this  
poisonous compound will separate like oil  
and water.

The St. Louis Fair opens Monday, Oct.  
5, and continues for six days. The premium  
list contains 24 departments, and \$73,000 is  
offered in premiums. A rate of one fare for  
the round trip has been made by all rail-  
roads running within 500 miles of St. Louis.  
\$130 are offered as premiums in the Apia-  
rian Department. Any of our subscribers  
desiring a copy of the premium list will re-  
ceive one free, by addressing Festus J. Wade,  
Sec., 718 Chestnut St., St. Louis, Mo.

Honey has been known to commerce  
about 2,500 years. The Jews were engaged  
in trading it at Tyre, that old and honored  
mart of trade in Phœnicia, some 600 years  
before the Christian era, as we are informed  
in the Bible (Ezekiel 27: 17). Sirach, who  
also lived about that time, mentions it with  
flour, milk, etc., among the necessities of  
life. Yet the scientific management of bees  
has not been practiced for 50 years. And  
instead of its being now enumerated among  
the necessities of life, it is too often thought  
to be a luxury. Why are people so slow to  
realize its value as a sweet, as well as its  
health-giving qualities? Does the "sting"  
frighten its thousands yet?

**Selling Honey at Home.**—The Minne-  
sota *Herald* remarks as follows about a suc-  
cessful honey-producer of that State, and  
one of our correspondents:

Mr. Fayette Lee, of Cokato, Minn., has  
about 130 colonies of bees, and has extracted  
3,000 lbs. of honey. We doubt very much if  
any man in the State has made bee-keeping  
such a study, or has carried on the business  
so industriously and to such satisfactory re-  
sults. Mr. Lee obtains the very best Italian  
queen-bees, thus bringing the amount of  
work performed by a colony to its maximum  
quantity. He is selling extracted honey at  
10 cents a pound, or if in sections, 15 cents  
per pound. We believe that a steady sale  
can be found for first-class honey, such as  
his, in all the neighboring villages. We are  
pleased to learn that Mr. Lee will exhibit  
comb honey at our State Fair, and we shall  
expect to see samples at our County Fair.

It is a well-settled fact that bumble-  
bees contribute their share toward the fer-  
tilization of red clover, while visiting the  
blossoms for the nectar they contain. Ital-  
ian honey-bees also perform the same office,  
for the clover, and many other flowers  
whose nectaries were too deep for the "old-  
fashioned" black honey-bee. There is no  
way of keeping colonies of bumble-bees  
alive through the winter. All but the queen-  
bee die late in autumn, because they have  
lived out their life. The following spring  
more bees hatch out from eggs laid by the  
queen, live out their summer life, and die.—  
*Prairie Farmer*.

A dog in the neighborhood of Los An-  
geles, Calif., is passionately fond of honey,  
and to gratify his taste, he robs hives when-  
ever an opportunity offers. He is grown  
quite expert in the business, and an ex-  
tract the sweet stuff with great dexterity.

**Dakota Territorial Fair** will be held  
at Huron, on Sept. 29 and 30 and Oct. 1 and  
2, and the prospects for a grand success are  
very flattering.

Every progressive bee-keeper has  
learned that appearance has much to do  
with the sale of the products of the apiary.  
Honey put up neatly and in a convenient  
manner for both dealer and consumer to  
handle, is what the markets of the present  
time demand.

Manufacturers of all classes, who desire  
to succeed in business, strive to create a  
demand for their brand of goods; hence,  
upon every individual package of superior  
goods they cause their private business card  
to be placed—giving name and address. Why  
need bee-keepers be an exception to this  
rule? They need not, and should not be.  
When once in this manner your reputation  
has been established with the consumer, a  
demand for your brand of honey is created,  
and they call for that every time. The  
avenue reaching this result in its fullest ex-  
tent, has in the past been almost wholly  
closed. The crating of comb honey gives  
you a standing with the dealer, but you  
have been wholly unknown to the con-  
sumer. At last the way is opened, and the  
folding paper box comes forward, promising  
the result so long desired, and how admir-  
ably it meets the demand may be seen by  
the following description:

The box is made of manilla board, with a  
double lap and tuck at each end, forming a  
very strong and tight box, allowing no  
"drip." On one edge is a nice tape handle,  
by which it is carried, making it in all a very  
pretty and convenient package. It takes  
the place of glass, both on the section and  
crate. It saves wrapping by the dealer. Its  
use is economy for producer and consumer.  
Being a folding box, it can be shipped in the  
flat, making transportation light.

We have received one of these excellent  
contrivances, and we are more than pleased  
with it. As they are cheap, only about 1¼  
cents each, they ought to be used univer-  
sally. The local markets, built upon local  
reputations, are the methods leading to  
success. Get these boxes with your name  
and address printed on them, and thus build  
up your own markets.

**The Production of Wax.**—A cor-  
respondent of the *New England Farmer* writes  
as follows on this subject:

Before the habits of bees had been studied,  
it was supposed that wax was collected  
from flowers, but later investigation shows  
that wax is a natural secretion of the bee.  
It exudes from the body, between the rings,  
in minute scales. This the bee takes in its  
"hands," works it like a piece of dough, and  
places it where it is needed. If comb-build-  
ing is in process, it deposits the piece of  
wax on the edge of a partly built cell;  
another bee then attacks it, gives it a twist  
or a pinch, and smooths it with its mandibles.  
Sometimes three or four bees will find  
something to do with that particular crumb  
of wax.

The workers are so many, and work with  
such rapidity, and do individually appar-  
ently so little, that the eye hardly perceives,  
in a short interval of time, that the struc-  
ture, the comb, increases in size; but close  
the hive and examine the same cell in an  
hour, and its greater length is seen at once.

Evidently wax is present when it is  
wanted, and absent when there is no use for  
it. This may not be the case, but appear-  
ances favor it. If there be no more room in  
a hive for comb, no wax, or very little, is  
needed; but if an empty frame be placed in  
this hive, the bees begin at once to fill it  
with comb.



WITH  
**REPLIES by Prominent Apirists.**

**Rearing Late Drones.**

**Query, No. 103.**—How do queen-breeders keep drones late in the summer? Do they rear them when wanted, or do they keep spring drones? If the latter, how?—H. J.

G. M. DOOLITTLE answers: "After drones are being killed, I take what drone-brood I can find in my best blooded colonies and place it in a queenless colony, which will preserve the drones."

G. W. DEMAREE says: "The querist speaks of 'spring drones.' Bees rear drones more or less until the early honey-season is over. I keep drones all summer and fall by transferring drone-brood to nursing colonies that have no laying queens."

JAMES HEDDON replies: "Most queen-breeders deem it best to cease queen-rearing when drones disappear. During emergencies they can be kept in queenless colonies."

DR. G. L. TINKER remarks: "They are kept in queenless colonies or nuclei. The life of a drone is seldom more than three months, so that spring drones cannot be kept until fall. I have kept 50 to 100 as late as Nov. 1, and had queens mated, but they were hatched in August."

J. E. POND, JR., says: "I do not know the methods used by others, but I believe that the surer way is to keep 1 or 2 colonies queenless, stocking them up occasionally with frames of capped brood. Of course the drones should be from the best queens in the yard."

PROF. A. J. COOK answers: "Full, strong colonies will not destroy their drones till it is too late to breed. At least they never do in our apiary."

CHAS. DADANT & SON reply: "They always have enough queenless colonies to keep all the drones they need. Besides, very few queens are reared late in the season."

W. Z. HUTCHINSON remarks: "I usually keep a few old queens, and by feeding their colonies, drones will be reared quite late in the season."

**Winter Repository for Bees.**

**Query, No. 104.**—I want to build a winter repository for my bees. There is a clay bank or hill near my bee-yard; if I build a house walled with stone in that bank, 18 or 20 feet long, 7 feet high, 5 feet underground and 2 feet aboveground, with the front end all out, will it be too damp for bees in winter?—K.

DR. C. C. MILLER replies: "No." W. Z. HUTCHINSON replies: "I think not."

PROF. A. J. COOK answers: "Surely not, if well drained. We do not know that dampness is injurious to bees. I should be much more con-

cerned to have the temperature entirely in my control. Give me a cellar that will not vary from 45°, and good stores, and I have no fear. This is my opinion after many years of successful wintering, and after watching others who have wintered bees well."

G. M. DOOLITTLE says: "No."

J. E. POND, JR., remarks: "I know nothing of wintering bees in special repositories. I have always kept mine on the summer stands, and I have never yet lost a colony either from climatic changes or disease. I do not believe that cold, of itself, ever causes the death of a colony; the evidence of many shows that dampness also does not have an unfavorable effect."

CHAS. DADANT & SON say: "We are inclined to think that it will hardly be warm enough if you live in the North. It will be dry enough, unless it is not well drained."

DR. G. L. TINKER answers: "No; but it may get too cold. A damp cellar is, no doubt, the best to winter bees in. A moist air is promotive of health in our houses—why not in beehives? Dampness in hives is one of the agencies in causing bee-diarrhea only when the temperature is so low as to condense the vapor, or where there is insufficient ventilation—one or both. Those who have been so fond of noting that since bees may winter well in damp cellars, the humidity theory is thereby disproved, would do well to consider the difference in effect on animal life between a warm damp atmosphere and a cool damp one."

JAMES HEDDON says: "I should have no fears of dampness whatever with a wall so much out of ground. I should fear the running down of the mercury during our severest weather, unless some special means for keeping up the temperature was provided. I should like to have that part of the wall double."

**Local Convention Directory.**

1885. Time and place of Meeting.
- Aug. 25.—Southern Wisconsin, at Janesville, Wis. John C. Lynch, Sec.
  - Aug. 25.—Des Moines Co. Iowa, at Burlington, Iowa. John Nau, Sec.
  - Aug. 25.—N. W. Ill. and S. W. Wis. at Rock City, Ill. J. Stewart, Sec., Rock City, Ill.
  - Sept. 1.—Linwood, at Rock Elm Centre, Wis. B. J. Thompson, Sec., Waverly, Wis.
  - Sept. 1, 2.—W. N. Y. and N. Pa., at Salamanca, N. Y. A. D. Jacobs, Sec., Jamestown, N. Y.
  - Sept. 3.—Eastern Indiana, at Richmond. M. G. Reynolds, Sec.
  - Sept. 8—12.—Iowa State, at Des Moines, Iowa. Wm. Goos, Sec., Davenport, Iowa.
  - Sept. 10.—Patanaga, at Ramer, Alabama. M. G. Rushton, Sec., Ralf Branch, Ala.
  - Oct. 10.—Wabash County, at N. Manchester, Ind. J. J. Martin, Sec., N. Manchester, Ind.
  - Dec. 8—10.—Michigan State, at Detroit, Mich. H. D. Cutting, Sec., Clinton, Mich.
  - Dec. 8—10.—North American, at Detroit, Mich. W. Z. Hutchinson, Sec., Rogersville, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

**Honey and Beeswax Market.**

Office of the AMERICAN BEE JOURNAL,  
Monday, 10 a. m., Aug. 24, 1885.

The following are the latest quotations for honey and beeswax received up to this hour:

**CHICAGO.**

HONEY.—Receipts of comb honey are coming more freely, and the demand is about equal to it. Yet 15c per pound is all that can be obtained. Extracted honey ranges from 5c to 8c for the different grades and styles of packages.

BEESWAX.—22c to 23c.

R. A. BURNETT, 161 South Water St.

**BOSTON.**

HONEY.—There is no change in the market, to speak of. We have had some new Vermont white clover honey in 1-lb. sections, which is very fine. There is a large crop in that State. Prices remain as follows: For 1-lb. sections, 10c to 12c; for 2-lbs., 14c to 16c. There is little or no sale for extracted.

BEESWAX.—30 cts. per lb.

BLAKE & RIPLEY, 57 Chatham Street.

**NEW YORK.**

HONEY.—The honey market is very quiet, and will continue so until fall trade opens up. Some old stock is on the market yet, with small shipments of new comb honey arriving. Southern extracted honey is coming in very freely. Quotations are as follows for comb honey: Fancy white in 1-lb. sections, 14c to 15c; fair to good in 1-lb. sections, 12c to 13c; fancy white in 2-lb. sections, 13c to 14c; fair to good in 2-lb. sections, 11c to 12c; fancy buckwheat in 1-lb. sections, 9c to 10c; fancy buckwheat in 2-lb. sections, 7c to 8c. Extracted white clover, 6c to 7c; buckwheat, 5c to 6c; Southern, per gallon, 55c to 65c.

BEESWAX.—Prime yellow, 25c to 26c.

MCCAUL & HILBRETH BROS., 34 Hudson St.

**CINCINNATI.**

HONEY.—The market is quiet with fair demand for extracted, and an abundance of offerings from commission houses and producers. Prices range between 4c to 6c on arrival. There is but little new comb honey in the market, with an occasional demand. Prices nominal.

BEESWAX.—Is in fair demand with liberal offerings, and brings 20c to 24c on arrival.

C. F. MUTH, Freeman & Central Ave.

**SAN FRANCISCO.**

HONEY.—New comb honey sells slowly because of last year's crop now on hand. We now quote—Extracted, old dark 4c to 5c; new white, 5c to 6c; dark, 4c to 5c. No extra white coming forward.

BEESWAX.—Quotable at 23c.—wholesale.

O. B. SMITH & Co., 423 Front Street.

**CLEVELAND.**

HONEY.—The new crop is beginning to arrive and is selling at 14c to 15 cts. per lb. for choice 1-lb. sections. Old honey is very dull—none selling although freely offered at 10c to 12 cts. Extracted, as usual is not in demand in our market.

BEESWAX.—20c to 22 cts. per lb.

A. C. KENDEL, 115 Ontario Street.

**KANSAS CITY.**

HONEY.—Trade in this article is very quiet just now. Nothing sells at this time of year except extracted honey, in bulk and small glasses and tins of honey. Some large sales of extracted this week at 5c to 6c for southern, and 6c to 7c for clover and sage. Comb honey nominal, at 12c to 13c for choice white 2-lb. sections, and 13c to 14c for 1-lb.

BEESWAX.—Weak at 20c to 25c.

CLEMONS, CLOON & Co., cor. 4th & Walnut.

To create Honey Markets in every village, town and city, wide-awake honey producers should get the Leaflets "Why Eat Honey" (only 50 cents per 100), or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully, and the result will be a DEMAND for all of their crops at remunerative prices. "Honey as Food and Medicine" are sold at the following prices:

Single copy, 5 cts.; per doz., 40 cts.; per hundred, \$2.50. Five hundred will be sent postpaid for \$10.00; or 1,000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc. (giving the name and address of the bee-keeper who scatters them).



## CORRESPONDENCE

**Explanatory.**—The figures BEFORE the names indicate the number of years that the person has kept bees. Those AFTER, show the number of colonies the writer had in the previous spring and fall, or fall and spring, as the time of the year may require.

This mark  $\odot$  indicates that the apiarist is located near the centre of the State named:  $\delta$  north of the centre;  $\eta$  south;  $\circ$  east;  $\omega$  west; and this  $\delta$  northeast;  $\omega$  northwest;  $\circ$  southeast; and  $\eta$  southwest of the centre of the State mentioned.

For the American Bee Journal.

### Is the "Union" of Value or Not?

J. E. POND, JR.

I do not understand the apathy that seems to exist among our beekeepers in regard to our Union for defense; nor can I understand why every bee-keeper in the country does not respond at once to the call, and enroll himself on the list of members thereof. There is no question but that the "Union" is of importance to the fraternity as a whole, although, perhaps, there may be cases (like my own for instance) where no particular individual benefit will result from it. We, however, as a class should drop selfishness, and instead of saying *cui bono* as to ourselves, should ask simply, will the "Union" be of any advantage to the fraternity as a whole? To this question there can be but one answer. We, as a class, are assailed in a "tender spot" through one of our fraternity (Mr. Freeborn). This suit against him, while purely an individual matter in one sense, is a blow at the occupation of bee-keeping, and as such should be at once resented by us all. Suppose for instance that the suit should result unfavorably to Mr. F., in what position then are we all placed?

The principle extends further than "sheep," and may be carried to all classes of stock, and further than that even as was the result in Greenfield, in my own State a few years ago, when a bee-keeper was driven from that town with his apiary, because the ignorance of the community claimed that the fruit trees were injured by his bees sucking the nectar from the blossoms that was needed to perfect the fruit.

The same kind of ignorance is the basis of this "sheep" suit, and unless the case is well and fully defended, a verdict may be recovered against the bees. This suit then being one that affects us as a whole, should not be allowed to rest unaided upon the shoulders of Mr. F., but each of us should join the Union, and thus aid him in its defense. The amount required from each individual is small, and will not become a burden upon any of us.

There is more to this question, however, than the simple contribution

of \$1.25 each. If a large majority of the bee-keepers in the country respond to the call, it will show the public that we are alive to our interests, and intend to defend them to the bitter end, and the result will be that by presenting a bold and determined front, we shall assure any possible antagonists that we are not to be assailed with impunity by any one who fancies he is aggrieved. On the other hand, if only a few of us respond in this matter, it will tend to show that either we take little interest in the matter of protecting our rights, or else that we believe ourselves in the wrong, and consequently prefer to save our dollars rather than invest them where we shall lose.

Let me urge one and all to enlist in this cause; do not delay a moment, but at once send in your names; and what is of more consequence still, your money, and thus show the public that you do not propose to be intimidated or to allow any one to drive you from the field without first making a strong and bitter fight to accomplish it.

I might amplify on this subject to a much larger extent, but I do think that there is no need of doing so further, and I trust that the list of members published in the BEE JOURNAL, will, by the first of September next, have increased from less than 200 to at least 2,000.

Foxboro,  $\circ$  Mass., Aug. 13, 1885.

For the American Bee Journal.

### Identifying Bees.

J. H. ANDRE.

Several weeks ago I gave as my opinion that it would be a hard point to prove the identity of the bees in the infamous lawsuit. Now, I do not wish to be misunderstood; for the absurdity of the thing—that bees would go that distance and drive sheep from the pasture—is only exceeded by the absurdity of thinking of saddling it on Mr. Freeborn, when, perhaps, his bees were not one-fourth of the number of those that visited the field; and in order to prove that they went there at all, it would require an expert bee-hunter to set the bees at work and line them across Mr. Freeborn's premises, and see them go directly into the hives. Even after this was done, there would be technicalities. One might set bees at work that went in the direction of Mr. F's apiary, and not go there at all; and Mr. F's bees might work in with the rest, after his own premises were reached.

It is 30 years since I took my first lessons in bee-hunting, and I would not think of testifying even circumstantially, where bees went to, by seeing them leave the flowers in the field, for they might turn after going ten rods. Old bee-hunters say that bees will turn in their course sometimes after they have been "lined" half a mile, especially if it be on a hillside, or where anything obstructs their course. The old and oft-repeated ex-

pression, "straight as a bee-line," is quite untrue in many instances.

Bees, when working on the flowers, are very timid, and this is more marked when they are working on white clover, for the reason of its being close down to the ground, and the field being so free from weeds, etc., where it is natural for clover to grow, thus giving the bees an unobstructed view of stock feeding upon it, when they leave immediately for other parts of the field. Bee-hunters have to use extra caution in catching bees that are working on white clover.

Buckwheat is in blossom, but it does not seem to yield its usual amount of honey.

Lockwood,  $\eta$  N. Y., Aug. 10, 1885.

For the American Bee Journal.

### Wintering Bees—Good Report.

FAYETTE LEE.

To winter bees in the cellar there should be enough bees to cover most of the combs of a hive, and 15 pounds of good honey, sealed over if possible. Put the bees into the cellar before the frost gets inside the hive, place them 2 feet from the cellar bottom, and leave the entrances wide open. Put a wedge  $\frac{1}{4}$  of an inch thick at the back end of each hive between the bottom-board and the hive, to allow ventilation, and keep the cellar at 45° until Jan. 20, then 40° until March 1, and then 38° until the bees are taken out. Keep them in the cellar five months, unless it is very warm in March. A winter flight does more harm than good.

I have had some inquiries as to how I wintered my bees the past winter, when nearly all the bees in the North perished. The above way is how I did it. Does any one think that I would go to the trouble of taking away the pollen? No, no, that is not the way; it is dampness and low temperature that kills the bees. I lost only 6 out of 80 the last winter and spring, and in the winter of 1883-84, I lost only 5 out of 65.

This season I have already taken 4,000 pounds of honey, and 1,000 pounds are in one-pound sections. It is mostly basswood honey. The best day's gathering from one colony, on the scales, was 21 pounds. That colony has gathered 175 pounds, having stored 84 pounds in seven days. I extracted three times from the basswood flow in 15 days, and I think that is often enough in order to get No. 1 honey. I have the straightest, nicest, and whitest and best capped sections of honey that I have ever seen.

Whosoever would be a successful bee-keeper must stick to it and keep his eyes open, and his mouth full of honey. To those who lost their bees last winter, I would ask, can you not discover the cause? If I have given any light in this my experience for nine years, you are welcome to it. Fill up the old hives, and let the joyful hum of the honey-bee make your hearts glad. I have bought 28 colonies more, so I now have 129.

Cokato,  $\odot$  Minn., Aug. 19, 1885.

For the American Bee Journal.  
**The Poison Oak.**

W. A. PRYAL.

"In the nice bee, what sense so subtly true,  
 rom poisonous herbs extracts the healing dew?"

growing near the habitations of white civilization. It is the poison oak, *Rhus diversiloba*. This plant is sometimes found growing in clumps by itself, at other times forming an underbrush, or promiscuously mixed up, as it were, with other plants; and

themselves to pieces." It is a pitiable sight to see a person thus afflicted.

A recent discovery of ours is that those who are subject to this kind of malady, are also affected by the sting of a bee; and when a bee stings them their skin becomes covered with a rash as if they were afflicted with oak poisoning.

As the Eastern readers of the BEE JOURNAL may not be interested to any extent in this subject, I will drop it, stating, however, that every one has a remedy for its cure. A new one is like that for a rattlesnake bite—a good "horn" of whisky, though I do not place much confidence in it; however, I have seen the efficacy of this cure for a severe bee-sting. The person was in a short time completely poisoned from head to foot, covered with a rash, swelling rapidly, and looked as if poisoned by both the sting and the oak; it was only the former, though subject, on the least contact with a dreadful affection of the latter poisoning. A good drink of whisky soon drove the bee-poison from the system, and the swelling in due time subsided. Now, let no one think that I am recommending every bee-keeper who receives a sting, to make for the bottle, and with it drive the sting from him, though it takes one poison to kill another.

I have studied this plant, of which there are two varieties in our vicinity—one poisonous and the other not—and I have found it to be a valuable honey-plant. In this I am borne out by the testimony of others in this State, who have watched bees working upon it during its season of blooming, which is in March and April—the two varieties keeping up a large supply of blossoms for almost two months. The honey is quite clear and delicious, and is in fact for clearness and flavor equal to any gathered in the vicinity of San Francisco.

The illustration gives a pretty fair representation of the manner of blooming, and the shape of the leaves. I trust that Eastern folks visiting this State will impress this picture on their memory, and thereby be able to distinguish this plant ere they, too, come in contact with it, for we are anxious that our friends will not be poisoned.

North Temescal, Calif.

For the American Bee Journal.

**Introducing Virgin Queens.**

J. M. HICKS.

I have kept bees for over 40 years, and have so often had some very fine queens hatched from such colonies as possessed desirable traits, as to warrant me in the effort to have all my colonies composed of the same if it were possible; after having many fine queens hatched from the eggs of a chosen colony.

I also have made special efforts to have some of the young queens properly introduced into other queenless colonies made so for the purpose; but in nearly every case the queens were



The lines at the beginning of this article are from Pope, and we have a plant here in California that these lines are applicable to—a plant that is common, and is also one of our poisonous "herbs;" it is, in fact, the most dreaded of all our wild plants

then, again, I have seen it clinging to a considerable height, as ivy does, to large trees. Some persons who come in contact with this plant are so badly poisoned with it that their person becomes swollen and inflamed; their only desire seems to be to "scratch



killed. I have always found that queens which are hatched in strong, vigorous colonies, are much the best; hence it will be readily seen that all the colonies into which I attempted to introduce the virgin queens, were strong and vigorous, having been robbed of their queen only a short time; and in some instances they were allowed to remain queenless from one to three days before the young queens were given them. Those virgin queens were reared in strong colonies, and then the cells cut out and properly placed in a queen-nursery in strong colonies, for hatching.

To my certain knowledge I have never had but one virgin queen accepted and fertilized when introduced as above described; and this one case was accomplished in one of my apiaries in Ohio, in 1883. In this instance the queen was not long lived, the bees having superseded her before she was 60 days old.

Can any one explain why it is that virgin queens cannot be safely and surely introduced into other than the colonies in which they are hatched, and become fertilized? For those who may try it, I predict a failure at least 85 times out of 100.

Battle Ground, Ind.

For the American Bee Journal.

### Bees Working on Red Clover.

W. M. CHAPEL, (25-52).

My bees are partly black and partly hybrid-Italians. I began the season with 25 colonies in box-hives, and increased them to 52. I have secured only 100 pounds of surplus comb honey. The season has been very poor in this vicinity, and bees have not done much. It will be difficult for some of them to gather enough honey to winter on.

I have heard a great deal said about bees working on red clover, but I thought it to be mostly advertising material. The other day I was crossing a field of red clover (second crop) in full bloom, and to my surprise I found my bees working on it by the thousands. I examined more closely and found about three-fourths of them gathering honey, and the balance pollen. The honey gatherers would run their heads into the petal and crowd it down until they split the blossom and secured the nectar.

I went to my apiary and found my bees falling like snow-flakes in front of every hive, while underneath this falling mass there shot out from every hive a stream at lightning speed. More than two-thirds of these returning laden with the sweets of the field, would fall on the alighting-board and on the ground. I watched the bees in their flight, and found them coming and going like an oceanic tide, to and from the southeast, which is in the direction of the red clover.

I immediately repaired to the buckwheat lot (about three acres), to the northeast 30 or 40 rods, and found only a few scattering bees lurking on the blossoms.

It was about noon, and this was continued through the afternoon. I then and there concluded that I, as well as other folks, had bees that would work on red clover.

Kingston, Wis., Aug. 17, 1885.

For the American Bee Journal.

### Have Bees the Sense of Hearing?

C. THEILMANN.

I have seen this question discussed in the bee-papers, nearly drawing the conclusion that bees cannot hear; but my experiments this summer have convinced me that bees can hear.

Last June I received a queen from a breeder in Massachusetts, which, on arrival, I put into a wire-cage and introduced her into a full colony; after 24 hours I let her loose, but the bees "balled" her. After re-caging her another 24 hours, I let her loose again and shut the hive quietly; five hours after I lifted off the section-case, one end of which I placed on the cap, and the other end rested on the rim of the hive 2 inches lower than the tops of the frames, the cap resting on the ground back of the hive. I then proceeded to look for the queen. I examined all the frames, but could not find her. I repeated it again, and when I lifted out the last frame, I noticed a rapid movement of the bees running over the frames and back wall of the hive under the case. Immediately the thought struck me that the queen was about the case, and I told my little student, who stood by, to see if she was not under the case. "Yes," said he, "she is there, and the bees are running to her." By this time there was quite a little cluster of bees around her, hanging down about 3 inches, with the queen on the lower end. The sight of this caused me to fear that I might lose my \$3 queen, and I wanted to catch her, but at that moment she flew away.

The next day I looked for her in the hive, but could not find her. I immediately gave the colony a frame with ripe queen-cells, and three days afterward a swarm issued from that hive, which my student hived in the usual way; but when I came to the apiary towards evening, I found only a handful of bees in the new hive, and some of them still going back to their old home. The next day I was going to put another swarm with the little cluster, but I first looked to see what kind of a queen they had, and to my surprise I found that \$3 queen.

Now, if bees cannot hear, by what way did these bees find the queen under the case? They surely could not see her from any part of the hive, and if it was the scent, as some authorities claim it to be, it surely would have kept the swarm with her, after being three more days with her in the old hive, from the time they found her under the case. In this instance it is evident that this queen called the bees by voice.

About two weeks after this occurrence, 2 swarms united, and my student hived them as they were. In the evening I came to the apiary and

found one of the queens "balled" under the entrance. I caged her, and looked for the other, and found her on the first frame. I lifted her from the hive, all surrounded or imprisoned by a lot of bees. Having the frame in my hands about 3 feet from the tops of the frames in the hive, the bees that held her first let her have liberty to crawl about, and at that moment the bees in the hive came running up through the frames in every direction, looking upward, and formed in a cluster in the centre of the hive 6 inches high, endeavoring to reach the frame in my hand. I am sure that the bees in the hive could not see the queen in the position I held her on the frame, and any scent from her could not reach the colony so soon. I leave this case to the readers, to judge by what way this queen called the bees to come to her.

I have one more thought to advance in favor of this question: After swarming, when the first young queen is hatched and crawls about the hive, we do not hear any piping until the next queen hatches and is trying to emerge; then the first one hunts up dry, empty cells, grabs them with her mouth and feet, violently moves her head and wings, whereby she produces that piping sound which is immediately answered by the one yet held in the cell by the bees. Is this not good evidence that bees can hear? Or can any of our bee-authorities explain it otherwise? Notwithstanding that bees can hear, I have for the past five years laid aside pans, bells, and triangles, which I had in use for 12 years at swarming time.

Theilmanton, Minn.

For the American Bee Journal.

### Eight or Ten Frame Hives?

C. P. DADANT.

On page 486 Mr. Heddon says that "'Critic' is not looking at apiculture in its broadest sense." I think that when Mr. Heddon is informed that "Critic" and the writer of this article are one and the same person, he will withdraw this opinion.

I do not at all agree with Mr. Heddon on the ten-frame hive; I quit making it 10 or 12 years ago, for a larger one, although I have about 100 ten-frame Langstroth hives in use yet. If Mr. Heddon were here I would have him ask the opinion of a host of laborers, farmers, and bee-keepers around us, who for years have used, or have seen in use, both the ten-frame Langstroth and a larger hive; and every man would tell him that the larger hive always gives the most honey on the average, and the least trouble.

Mr. Heddon seems to think that it is preferable to have 5 eight-frame hives to 4 ten-frame ones. I think—nay I know that the profit is much less, and the manipulations more. The bees will swarm more in an eight-frame hive, because three-fourths of the queens have too little room for breeding; hence more labor, more

outlay of hives and fixtures, and less honey.

He says that queens cost nothing during the swarming season. Yes, they cost the colony 30 days without breeding; and in practical bee-keeping it is cheaper to buy dollar-queens than to rear them. Our hives, containing the equivalent of 12 Langstroth frames, cost but little more than an eight-frame hive, and can be reduced to suit the size of the colony, or rather the laying-capacity of the queen, if necessary; but as a general thing a queen that cannot fill ten Langstroth frames during the breeding season, at the times when eggs are most valuable, is not fit to keep.

Mr. H. wishes to have it understood that he reduces the breeding-room to five frames. This would give the queen room for only a little more than 1,600 eggs daily. Indeed, it looks as if he thought that the less bees we have, the better.

He speaks of Mr. Adam Grimm, in support of his views. Mr. Grimm lived in a time when bees were high, and he found that it paid better to rear bees for sale, than to produce honey. The eight-frame hive will give plenty of swarms, as I said before, for the queen is soon crowded for room. I can bring as high authority in support of my views as can Mr. Heddon. About a week ago I visited Mr. Langstroth, and in discussing this subject, he told me that he had noticed that colonies whose hives contained 13 Langstroth frames, produced more honey, on the average, than those whose hives contained only ten frames. Mr. C. F. Muth was of exactly the same opinion.

To the beginners, who read our discussions, I would say: Do not rely altogether on any one bee-keeper's advice. You may try an eight-frame hive, and even a five-frame one, but please try a twelve-frame hive also, on a sufficiently large scale to make a test. You will find it better for wintering, better for the prevention of swarming, and better for the production of both comb and extracted honey. Perhaps the queens will not last quite so long, but the returns will be greater.

These are facts, not theories, long and thoroughly tried on hundreds of colonies, and the test is still going on with me.

Hamilton, Ills.

For the American Bee Journal.

### That Contraction Method.

W. H. STEWART.

Since reading Mr. Heddon's article on pages 213 and 214, I have been anxiously looking for his promised explanation of his new method of changing sugar syrup for natural winter stores, "without cost, danger, or even the trouble of opening the hives;" and on page 437 he gives something of his promised article, which I eagerly read over and over again.

I must say that I am somewhat disappointed, for I there find little that I

would dare to put into practice. I also think that Mr. Heddon's bees must work very differently from the way bees do in this locality. Mr. H. says: "I find that the queen uses these five combs [in his contracted hive] to that extent that I get as much brood in them as in any seven combs where the whole eight are used." I am now working my bees in hives 17x17 inches, and 9 $\frac{1}{4}$  inches deep, ten frames to the hive, and I find that the bees store the two outside combs with bee-bread and honey, which they use and must have to feed their brood. That leaves eight frames of brood, and now in the height of the breeding season I have the hives from two to four stories high; and in many of the second stories there are six combs of brood besides the eight frames below.

When these frames of brood in the second story are sufficiently advanced, I give them to nuclei, and thus, in a short time, those small colonies are built up to full strength, and ready for a surplus story. Any one must see that a colony on five, or even eight frames, in the brood-chamber, and the queen kept there by a honey-board, and only sections above that board, there cannot be more than  $\frac{1}{2}$  or  $\frac{2}{3}$  the brood in the hive that the queen is able to produce.

I have tried the same sized hive that I now use, with one side of the hive so arranged that it could be moved inward so as to contract the brood-chamber to any size all the way from ten to three combs, and I have found that the queens do not deposit eggs in the two outside combs next to the hive. It is true that we may so change the frames as to place full frames of brood next to the board, but in this locality the bees will allow the brood in those outside combs to hatch out, and then they fill them with honey and bee-bread as at first. They did this every time when I was using the adjustable hive, whether I had in few or many combs. Thus it is, that if I were to adopt Mr. Heddon's "contracting" plan, and have only five frames in the brood-chamber, there would be but three frames of brood, which I think undesirable.

In the fourth paragraph on page 437, Mr. Heddon evidently gives us to understand that his system works best with German bees. Thus, if we would get the full benefit of his system, we must stop Italianizing and go at once to Germanizing.

It is well known by every well-posted bee-keeper, that when the stores run short in the latter part of the season, the rearing of brood is discontinued in proportion, and when once stopped will not be resumed; and Mr. H.'s plan would give us nothing but old bees to put into winter quarters; and if he puts up none but old bees next winter, he may give them what food he thinks best, and keep them as warm as he will, still he will have to report a loss again next spring.

He says that what little floating pollen is necessarily in honey, renders it less fit for winter stores than is sugar syrup. Every observing bee-

keeper, located where the bees have access to the orange-colored asters that are found in great abundance along the streams late in the fall, knows that they gather a large amount of pollen from that plant, and if the brood and honey are kept out of the combs, they will be filled with this pollen; and if the combs that contain it are not taken away (and the hive opened for that purpose), there will be much more pollen in the brood-chamber where he has reduced them to "a perfect starvation condition," than would be found in a hive full of ordinary honey.

But Mr. H. says that bee-bread will not be eaten by the old bees, if they are warm enough. Perhaps that may be true; and perhaps this aster pollen (or bee-bread made from it) will prove to be harmless.

In November, before it is late enough to put the bees into the cellar, they are at times subjected to quite cold weather, and sometimes we look anxiously for several days, for a day warm enough for the bees to have a flight before we put them into winter confinement. But that day does not come, and we have to put them up and take our chances. Mr. Heddon's "contracting method" does not take all the bee-bread out of the hive, for he says that his "little brood-chamber contains but little honey and pollen," and his theory indicates that when cold, they will eat that pollen (or bee-bread, which ever happens to be present); and now that they have been cold, have warmed up by exercise, wasted tissue, and finally eaten bee-bread, how are we to get that bee-bread out of their intestines in steady cold weather, without a warm day for the bees to fly?

When Mr. H. says that he is absolutely certain that he will lose no bees next winter, he, according to his theory, virtually affirms that he is absolutely certain that when he gets ready to put up his bees next fall, the last day that he leaves them out will be warm and pleasant, and not turn cold enough to reduce the temperature in the hive so low as to prompt the bees to make extra exertion to warm up the hive. And furthermore, does not the exercise of a day's flight create an appetite in the bee for another meal of nitrogenous food? Again, how are we to know that all bees that have made an effort to warm up a cold hive, fly out the same day? If not, would they not spot the inside of the hive soon after put into the cellar.

If we reduce our colonies in the fall, to a "perfect starvation condition," would we not have a busy time in trying to keep one colony from plundering another? Would not those in a starving condition be found swarming out and forcing their way in with other colonies?

I admire the energy and the investigating disposition of Mr. Heddon; I wish to thank him for many good thoughts; I wish that he may successfully winter all his bees; and that he may be able to make us all understand how to "go and do likewise."

Orion, Wis.



For the American Bee Journal.

**A Visit to a Large Apiary.**

DWIGHT FURNESS.

Knowing from experience that such a visit is profitable in many ways, the close of the basswood honey harvest found me *en route* for Dowagiac, Mich. As I journeyed on, I, of course, watched closely from the car windows for signs of our favorite pursuit, but never a bee or a hive presented itself to view.

Dowagiac is an enterprising town of some 3,000 inhabitants. The hard, graveled streets, shaded by rows of maples, elms, basswoods and other trees, and the many beautiful lawns unmarred by fences, attract and charm the eye of the visitor.

A quarter-mile walk brought me to Mr. Heddon's house, only to find that that "spanking team," about which we have been told, had taken Mr. and Mrs. H. seven miles across the country to visit their Glenwood apiary. Workmen were at the home apiary, however, and thither we turned our steps.

A high and close board-fence surmounted by two strands of barbed wire shuts out the outside world, and a notice on the gate reads, "No admittance except on business;" but the "latch string is always out" for the visiting bee-keeper. The yard embraces about  $1\frac{1}{2}$  acres of sandy soil, with a slight southern slope, and is entirely free from obstructions, with the exception of several apple trees on the north side.

The hives, about 300 in number, face the east, and are spaced from 6 to 8 feet apart. Shade is secured by means of wide boards, which extend over the south sides of the hives, each one held in place by the weight of a stone. There is an air-space of  $\frac{3}{4}$  of an inch between this board and the hive-cover. This readily-movable and controllable shade seems to be generally favored by large honey-producers.

Only 120 of Mr. Heddon's colonies survived the rigors of the past arctic winter. To re-stock his apiaries he invested some \$700 in bees, and by skillful management has increased, in the two apiaries, to over 450 colonies, all in fine condition. The purchased bees being in all shapes and styles of hives, and rapid increase being desired, his apiaries were run almost exclusively for extracted honey. All are now on standard Langstroth frames.

Drones have been kept down (chiefly by the use of the knife), colonies transferred, the new stock re-queened, queens reared for market, and from 18,000 to 20,000 pounds of white honey secured. To perform this immense amount of work, two men and a boy have been constantly employed at the home apiary throughout the honey harvest. The two men removed and carried into the honey-house 1,500 pounds of honey in one day.

Although but little honey was being gathered at the time of the visit, the bees were quiet and gentle, queen-

rearing was going briskly forward, and hives being constantly opened, with little or no trouble from robber bees. Queens are reared in full colonies, having all other brood removed. The date is marked on the frame containing the eggs or freshly hatched larvæ, and just before the time for queen-cells to hatch, the entire comb is removed to the lamp-nursery. The young queens are run into the entrances of hives containing queenless colonies or nuclei, using some smoke, with no appreciable loss. All records are kept on the backs of the hives with non-erasable crayon—a convenient method, but not so neat as might be desirable. Surplus honey registers are used on all supers, and are considered necessary in so large an apiary. Reversible frames are very extensively used and thoroughly tested; with them perfect sheets of comb and brood are secured, and they will remain a permanent fixture of these apiaries.

One noticeable feature, and a very important one, too, is the rapidity with which all manipulations are performed. Here the fact is recognized, that labor is the chief cost of honey-production, and every possible means of lessening labor and meeting the present and future demand for cheap honey, adopted.

Near the centre of the yard is a screen-house into which colonies manipulated during a honey-dearth, are carried. Comb honey supers are also placed here until free of bees. A large portable tent is sometimes used, but it is thought to be a poor substitute for the screen-house. In the southwest corner of the yard is the old honey-house, now used for a shop and the storage of articles and fixtures not in use. A little house for smoker fuel and swarming implements, on the north side; an underground cellar in the southern, and the new honey-house in the eastern part of the yard, complete the buildings.

The honey-house is a very complete, painted, two-story building, 18x30 feet, with a stone cellar full size, 9 feet deep, cement floor, no ventilators, and ceiled overhead with matched flooring. The first floor is laid with narrow oak flooring, the walls and ceiling covered with matched pine-flooring, and the walls and floor filled in with sawdust. Four large revolving windows, two on each side, pivoted at the top and bottom, give an abundance of light and ventilation. The door-ways in opposite ends of the building are provided with wire-screen doors and a projecting semi-circle of wire-cloth covers each window. In one corner of the room is a driven well and pump, in another is a large cook stove, and in a third is the honey-extractor, with comb-basket large enough to take the Langstroth frame in a horizontal position. At either side of the room is a long work-table. The upper story is reached by an outside stairway, and is used for storing surplus receptacles, combs, etc. The honey is stored in kegs holding from 50 to 100 pounds each. While practicality is not sacrificed to esthetical notions, everything is kept clean

and neat, and one is impressed with the fact that here honey is produced at present minimum cost.

Upon Mr. Heddon's return we enjoyed those long talks so dear to the bee-man, and many new ideas were met with. All possible means were taken to make the visit pleasant, and I returned home feeling amply repaid for the time and money expended.

Furnessville, Mo Ind.

For the American Bee Journal.

**Do Bees Steal Eggs?**

C. G. BEITEL.

On page 459, Maria Hawkins, of Cedar Rapids, Iowa, states a case in which I feel some interest.

On July 1, she says she put a swarm of bees into a hive in which the bees had died during the winter, and the frames were filled with combs, all ready for them to go to work; and that in some way the queen was lost before they were put in. On the fifth day thereafter she says that she found three queen-cells, and nine days after, she found they were still making queen-cells, and she asks, where did the bees get the eggs or larvæ from which to rear queen-cells?

A neighboring bee-keeper informs me that having a queenless nucleus for several weeks, he purchased an Italian queen an introduced her. A week after, he examined the nucleus and found no trace of queen, eggs or larvæ. Two weeks later he introduced another queen, which the bees killed at once. He again waited two weeks, when he proposed to introduce a third queen, when, lo! and behold, he, too, found three queen-cells! Now, where did these eggs come from?

These two cases I give as I heard and read them, but the following is my own experience, and I can vouch for the facts:

On July 4, last, having a colony of blacks, which was only medium strong, having failed to cast a swarm, and stored but 8 pounds of honey, I concluded to supersede the queen. To accomplish this, I carried the colony to a new stand, took out 4 frames of brood and honey, and after brushing off all the bees, I put them into a new hive and placed it on the old stand. The consequence was, the flying bees all came back to the hive on the old stand, while the queen and young bees with 4 frames of brood and honey remained in the old hive on the new stand. After they had quieted down, I caught the queen and destroyed her. On July 9, I again examined both hives, and found seven queen-cells in one and three in the other. So far everything was according to their nature. I cut all these cells out, and the next day introduced a queen to each of these half colonies. One was accepted, and the other destroyed.

On July 22, I again examined the queenless hive, and again found three queen-cells. Now, where did they get these eggs? It was too late to attribute them to the old black queen, and the only possible solution is, that

the last queen introduced laid a few eggs before they killed her. I regret exceedingly that I destroyed these latter cells preparatory to introducing another queen, as the one killed was a bright Italian, and if she laid the eggs for these latter cells, the young queens would have told the tale, and thrown light upon the matter.

While I am unwilling to accord that almost human intelligence to bees, which some men do, yet may not their instincts of self-preservation lead them to steal eggs as well as honey? I would much like to hear the experience of others on this subject.

Easton, Pa.

Exchange.

### Does the Queen Rule the Colony?

J. A. WARD.

It is supposed by many persons, among whom there are some well informed upon every branch of natural history, that the queen-bee is an absolute sovereign, and that she rules her subjects—the worker bees—by her royal edicts, from which there can be no appeal; that she plans the swarming movement, and in her jealous rage slaughters her royal offspring rather than bear the presence of a rival under the same roof with herself; and that she will even secretly assassinate her own tender princesses, while in an undeveloped state, and before they have emerged from the dark chambers of embryonic life; that she is terribly fierce and unrelenting in battle, when at war with a sister queen, into whose vitals she will plunge her poisoned lance with the most deliberate and deadly aim. And so the war is prosecuted until the last rival lays dead at her feet, or until some more powerful princess of her own blood has thrust her dagger into the heart of the royal mother, and reigns herself supreme; thus carrying out the theory of the late Mr. Darwin, of "the survival of the fittest." Outside of the hive, however, the queen has the name of being exceedingly timid, never trying to defend herself, though she may be roughly handled and have every opportunity to use her sting if she choose to do so. This I know to be true, but as for the royal government, fierce hatred for her young queens, and bloody butchery of the same, I believe to be a grand fabrication, having an existence only in the fertile brain of some pugnacious queen-fancier.

But without further comment let us examine the domestic affairs of the hive household, and learn, if we can, what is going on therein, and who plans the work and *does the job*. The queen, the mother of the hive, we will find busy at her daily work, if in the honey-producing season, moving from cell to cell and inserting her long body into each, depositing an egg at the bottom, and in this steady way will fill many sheets of comb during the 24 hours. And while thus engaged in filling the position in the hive that nature intended that she should fill, wearing out her own life

in reproducing her own kind, she heeds not the busy scenes that are taking place around her. The workers, laden with honey and pollen, run pell-mell over her back, and without the least disturbance to her matronly equilibrium, she goes on attending to her own business, and at the same time allows all other members of the hive to do the same.

Occasionally, however, she is called to a halt by some one or more workers, laden with honey, whose instincts have constituted them a self-appointed committee to feed the queen, and from their hands (as it were) she accepts the proffered food, receives and returns the caresses of those who have treated her so kindly, and then with dignified deportment returns to her labor.

□ During all this time, the workers, divided by their natural instincts into different departments of labor, that the work of the hive may proceed in perfect harmony, we find some gathering honey from the fields, others feeding and capping over brood, others again carrying honey from its scattered condition in the hive and placing it in a compact manner above the brood-nest, or in surplus boxes; some mixing the bee-bread with honey and placing it in a position where it will be most easily reached when wanted, either for the younger bees or food for the laborers, where it is also capped over by others than those that place it in the cells. All these different departments of labor are being attended to at the same time, and doubtless without the consent, knowledge or orders of the queen.

We also notice bees stationed at the entrance of the hive acting as guards, which zealously keep out all robber bees, wasps, bumble-bees, ants, roaches, etc., etc., that are always on the lookout, watching for a chance to stick their noses into the sweet stores treasured up on the inside of the hive.

There is still another lot of bees in and about the hive, from whose actions we might readily conclude were dead-heads, did we not know to the contrary. These we see hanging in festoons to the end of combs and empty frames, many of them with their heels up and heads down, or piled up, if the weather is very warm, on the outside of the hive, looking full, fat and sleepy, and apparently as happy and contented as if they possessed honey enough to last them the balance of their days. These are doubtless wax-secreters, whose whole duty appears to be to eat honey and secrete wax, while others gather it from their bodies and manufacture it into beautiful combs. These comb builders we can see with feet, teeth and feeders busily engaged plying their ingenious vocation. All these different departments of labor and apparent skill are doubtless performed through or by the instincts of the workers, and not at all by the orders and supervision of the queen.

But to return to the queen: If she ruled the hive with sovereign power, she would not be supplanted by the workers when she becomes old and

worn out and no longer able to keep up the colony, but would remain mistress of the premises and keep her subjects at work as long as a single bee remained in the hive to obey her royal commands.

That the queen has nothing to do with the swarming movement I have had abundant proof, while watching the bees when swarming. Upon one occasion I saw the workers push the queen off the alighting-board a number of times before she would take to the air. Every time that she was pushed off she would return, until finally she gave it up and took to the air with the workers. Every one who keeps bees knows how common it is for them to swarm, and after being in the air for a few minutes, to return to the hive. I have upon several occasions hived swarms that after remaining in their new quarters for half an hour or so, returned to the old hive.

What is the cause of such behavior? Simply this: When the workers have made due preparations for swarming, they raise the alarm, which every bee, through the gift of its inborn instincts, understands, and they rush out pell-mell, and in a large majority of cases the queen catching the excitement, rushes out with the workers. But at other times she is not quite so easily excited, or is too busy to pay any attention to the uproar, and remains in the hive attending to her business, and after the bees have circled in the air for several minutes, or perhaps settled, they make the discovery that their maternal ancestor has been left behind; and, knowing from their instincts that a colony without a queen or mother-bee would soon perish, they return to the old home. I have known swarms to come out and return in this manner three or four times before they could induce the queen to follow.

I was taught to believe by writers on bee-culture, that if two queens were put in the same hive, that the bees would clear a space, form a ring in the centre into which the queens would enter, and without much preliminary sparring would pitch in for "the survival of the fittest;" continuing the *bout* until one of them is placed *hors de combat*. This is certainly a mistake in a majority of cases, so far as my observation extends, and I have united a great many bees, turning the queens in with the workers, and upon examination in a few hours afterwards have rarely failed to find one of the queens in the centre of a ball of worker bees, where they would generally keep her until she was dead, smothered and squeezed to death. Hence we find that the workers kill the surplus queens, and that the queens themselves have nothing to do with it.

I also find stated in books written upon the bee-subject, that the workers have to guard all the queen-cells after they are built and the eggs placed in them, to keep the old queen from destroying them before they are matured. This may and may not be true; my own opinion being in the negative. As the workers destroy all the extra queens that are matured,



doubtless they destroy all extra and useless cells as soon as their instincts tell them that the swarming season is over. There can be no consistent argument brought forward to show that the instincts of the queen prompt her to do anything that would prevent the propagation of her kind, and as she cannot be moved to such acts by a rational feeling of jealousy, as all feelings for the opposite sex are supposed to be lost as soon as she has mated with a drone, and become fertile, the whole matter must be a mistake.

## SELECTIONS FROM OUR LETTER BOX

**Good Honey Season.**—D. K. Knoll, Salamonina, Ind., on Aug. 13, 1885, writes:

I had 19 colonies of bees in the spring of 1885 for work, in good condition, and I have 2,000 pounds of honey (half comb and half extracted). They increased to 38 colonies; I sold 2, leaving me 36 colonies for this season's work. They increased by natural swarming.

**Good Lot of Honey.**—T. F. Bingham, Abonia, Mich., on Aug. 19, 1885, writes:

We have a lot of good extracted honey for this region, but it is not yet sold.

**No Basswood.**—O. B. Barrows, Marshalltown, Iowa, on Aug. 14, 1885, writes:

Bees did well while white clover lasted, but the basswood secreted no honey. I did not see a bee at work on the linden blossoms, and as that is one of our principal sources, the crop of surplus in this section will be light.

**The Syrio-Albino Bees.**—Dr. G. L. Tinker, New Philadelphia, O., on Aug. 14, 1885, writes:

I mail you to-day a box containing some worker bees of the new strain of Syrio-Albinos. I have a few queens producing workers all like these. I consider them the most absolutely beautiful bees that it is possible for man to produce by the most careful selection.

[The bees are very fine, well developed, and beautiful in appearance.—Ed.]

**Poor Honey Season.**—G. W. Morris, Cornishville, Ky., on Aug. 13, 1885, writes:

This has been the poorest season for honey since I have kept bees; there being only about 400 pounds of honey in my 18 two-story Langstroth hives, which could be extracted and called surplus. I have had but one swarm this season. Some who have kept bees a long time in this county (Mercer), say they expect to lose more than half their bees during the coming winter. The Langstroth hives filled with Italian bees, so far as tested here, prove to be the best for extracted honey. Old boxes, log-gums, and black bees are almost a failure. Bees are getting about as much as they consume daily from the buck-bush. I think well of the Bee-Keepers' National Union.

**Regularity.**—O. Fitzalwyn Wilkins, International Bridge, Ont., on Aug. 17, 1885, writes:

I receive the AMERICAN BEE JOURNAL every Wednesday at 8:25 p. m., which is more than I can say for the regularity of other apicultural periodicals.

**Shallow Reversible Frames.**—Dr. J. C. Thom, Streetsville, Ont., asks the following question:

The frame I use now being 10 $\frac{1}{2}$  x 13 $\frac{1}{2}$ , inside measure, I would like to ask Mr. Heddon, through the BEE JOURNAL, if by adopting the reversible method I cannot make it as successful toward the production of section honey, as if I adopted a shallower frame, say 9 inches, the hive holding 9 frames.

[As much depends upon the operator and location in which he operates, I could not say positively just how any of your experiments would turn out. I could hardly advise one as extensively in the business as yourself, to change, if only so slight a change is contemplated. In my experience I find even the Langstroth hive too deep. Surely the reversing principle is of most value to the deepest frames, yet I know of no frame so shallow but that I should desire to reverse it at times. The deeper your frames the greater the necessity for constant reversing. For myself I should abandon a hive of the dimensions of yours, but your experience may teach you differently; and were I only going to alter the hive, I should not change the size of the frame, but simply make all new ones reversible.]

**Winter Packing.**—R. L. Moore, Boonville, Mo., on Aug. 13, 1885, writes:

I send a sample of a plant which lately has made its appearance here, and has spread rapidly. The bees swarm on it early in the morning and late in the evening. It blooms from the middle of July until September. I am of the opinion it is the spider plant. I enjoy every moment I get to work with them, unless it is when one stabs me. I succeeded finely last winter, while many of my neighbors came near losing all. I prepare them thus: I have a house 7 feet wide by 40 feet long; doors set in front so that I can take all out. The house faces south. I first get a dry goods box and fit it down over the hive so there is 3 inches or more space all around. Then I take out 2 or 3 of the lightest frames and cut a hole about one inch in diameter one-third from the top of every frame left in the hive; draw up the division-board and fill behind it with chaff; also fill between the box and hive with chaff. I then separated the frames so that they are all from  $\frac{1}{2}$  to  $\frac{3}{4}$  of an inch apart at the top with slats in, so the air can pass up freely. Then I take a gunny-sack and make a chaff cushion 6 or inches thick and put over the frames. I put the cover on the box and let them take care of themselves, which they did well last winter. It is considerable trouble, but in the bee-business I find, as well as any other kind of work, that "there is no excellence without great labor." Bees have not done much here this summer, but are gathering honey now. I think we shall have a big fall yield, from present prospects.

[It is cleome, called by some the Rocky Mountain bee-plant.—Ed.]

**Crop Almost a Failure.**—Joshua Bull, Seymour, Wis., on Aug. 13, 1885, writes:

The honey crop is almost a failure in this vicinity. Bees did fairly well through fruit-bloom, and white clover yielded nectar quite plentifully from June 15 to July 6, but on July 7 it seemed suddenly to cease. Basswood bloomed profusely from July 15 to the 25th, but the most of this time was very rainy; yet we had two or three fine days, and I visited some trees several times that stand within 100 rods of my apiary. The bloom was abundant, but not a bee could I see or hear, except one bumble-bee which was buzzing mournfully around, solitary and alone. At this date there are several acres of buckwheat in full bloom within one mile, and although the bees make considerable stir, yet they do not seem to get much honey. Goldenrod was making a fair show for fall bloom, but alas! the grasshoppers are eating all the buds and blossoms off from that. From the present prospects it appears as though we might have a good opportunity to try the virtue of sugar for wintering our bees next winter.

**Some Queries.**—A. J. Duncan, Hartford, Iowa, on Aug. 11, 1885, writes:

I lost all my bees (38 colonies) last winter. I packed them out-of-doors in the most approved way I know of; that was, by setting them in rows, side by side, facing south, boarding up tightly behind and in front, tramping in straw, 13 inches thick behind and 10 inches in front; putting sticks across the frames and cloths over the sticks, filling the upper story with dry forest leaves, covering all over with straw, and a wide board in front, to keep out the cold winds and snow. Bees in cellars fared but little better. Not over 5 per cent. (and perhaps not over 3 per cent.) of the bees wintered in this township. There has been the usual amount of absconding swarms (some say more); two took possession of two of my empty hives, three of one neighbor's, and one of another neighbor's. Where did they come from? There has been some discussion in the BEE JOURNAL whether bees will winter better in trees than in modern hives. This is a timbered section, having one of the largest groves in the State, being about 20 miles long and from 3 to 6 miles wide. Is not this circumstantial evidence that bees do winter best in trees? I will take the hint and act differently hereafter.

**Bee-Keeping in Alabama.**—W. E. Freeman, Olustee Creek, Ala., on Aug. 17, 1885, says:

Apiculture seems to be growing immensely in Alabama at this time. Bee-keepers' societies and clubs are springing up; movable frames are slowly coming into use; one and two-story hives are being discussed, and many other subjects of importance. Bees have been doing well since April 1. Many colonies perished in February and March, leaving the frames in the hive full of sealed brood, larvae, etc. We anticipate a heavy crop from the fall bloom, should the weather prove propitious. We bee-keepers of Alabama think that we have one of the best bee-countries upon the face of the globe; all that our people lack is to be fully aroused to the importance of so small an insect as the honey-bee—and we are waking up at last. We have organized an association for bee-keepers, known as the "Patsalaga Bee-Keepers' Society." It meets monthly at some member's apiary or residence. We have held two meetings since the organization was perfected, and we expect our meetings to grow more and more in interest.

**Good Season for Increase.**—J. J. Martin, North Manchester, Ind., on Aug. 19, 1885, says:

A good season is reported from all bee-keepers in this immediate neighborhood. It has been especially good for those working their bees for increase, and that has been the principal object here, as nearly all bees were destroyed by the extreme cold of the past winter. No honey of any account has been gathered during the past three weeks, but all look for a good fall honey-flow from goldenrod, buckwheat, etc.

**Northern Michigan Honey.**—L. Reed, of Orono, Mich., has sent us a sample of his honey, and on Aug. 19, 1885, wrote as follows:

I have sent you a sample of our Northern Michigan honey. How does it compare with the honey of Illinois and other States farther South? The honey season is over, and we have had a splendid yield. Bees are gathering some honey from buckwheat and other fall flowers. Some colonies are killing their drones. I have lost only one young queen this season, and then I gave the colony a laying queen in time.

[The honey is very fine, and will compare favorably, both in color and flavor, with that produced in the best honey-producing locations of the Continent. Northern Michigan is, we believe, almost unequalled for its honey-producing flowers.—ED.]

**A Great Country for Bees.**—B. W. Lawton, Viola, Wis., writes:

I am one of a thousand bee-keepers in the Kickapoo woods that are liable to hear complaints similar to the one made against Mr. Freeborn. This is a great country for bees; we have both wild and tame bees, and an abundance of basswood timber, white clover, soft and hard maples, and all kinds of wild flowers and wild fruit trees. This year I can stand on a bluff and count hundreds of acres of buckwheat sown where our little honey-gatherers are securing their harvest. We all should join in heart and hand and have our welfare protected; and if \$1.25 is not enough, I will double that amount.

**Cone-Flower.**—Chas. Harrold, Hamburg, Iowa, on Aug. 15, 1885, writes:

Please give me the name of the flower I send you. It is a good bee-plant with us, the bees getting both honey and pollen from it. It grows on the low lands and on creek-bottoms in the timber land. It usually grows about 6 feet high, and somewhat resembles the sun-flower. Bees are doing well here this season.

[It is called the "cone-flower"—blooms in August, and yields considerable honey. ED.]

**Poisoning Bees.**—W. A. Pryal, North Temescal, Calif., on Aug. 14, 1885, says:

Of late I have taken some interest in the bee-poisoning "business," and I have just read Mr. Bray's letter on page 491. I have heard of several such cases this year. Here is one from a letter by a Ventura county apiarist: "I have an apiary in the foot-hills, and not far off are some orchardists. One fruit-raiser says that the bees destroy his fruit, and they must go. I felt easy until lately, as there are more bee-keepers about here than there are fruit men, and this particular fruit-grower I complain of would fare poorly at

law against us bee-keepers. My uneasiness arises from having heard that our bees are to be killed by the wholesale, by setting baker's yeast for them. It is said that yeast is sure death to bees; how is it? It seems hard to be at the mercy of belligerent horticulturists. What are we to do?"

**Bees Lying Out.**—2—F. S. Elder & Bro., (67—80), Lake Village, Ark., on Aug. 16, 1885, write:

On page 508, Mr. C. H. Dibbern remarked that his bees laid out so much while the mercury was up to 90°, and asks how to prevent them from doing so. The following is what we did to keep our bees in when the mercury was up to 94°: Nearly all of our bees are in Blanton-Simplicity hives, and the fronts of them were covered all over with bees. We just took the covers off and laid the mat back about 4 inches, and put the cover back, letting the cleft on the back end of the cover rest on the top of the hive, and we have not seen any more bees lying out since. Bees are doing well in this locality this season.

**Second-Swarms, etc.**—Chas. Mitchell, Molesworth, Ont., on Aug. 17, 1885, says:

Every fifth colony lived on the Heddon-plan has cast a second-swarm this year. But much the greatest proportion was from colonies on deep frames, as I had only one second-swarm from those on shallow frames. Can any one account for this, as they all had plenty of room? Also 2 colonies that I sold last fall were wintered in a snow-bank, and have increased to 6; each of the old colonies having swarmed twice. This has been a poor honey season. Basswood was a failure, though it bloomed well.

**Queen-Cells, Feeding, etc.**—A lady apiarist asks the following questions:

1. Do strong colonies, with plenty of sections, rear queen-cells and swarm during the month of August?
2. Does feeding bees make them lazy? I have been feeding three of my colonies for four weeks, and they seem to depend upon this. They bring in plenty of pollen, but do not have a great deal of brood, yet they seem unable to store any honey.
3. I have a colony of bees that on each afternoon mass themselves upon the outside of the hive. They had two frames of comb to finish and fill; thinking to induce them to go inside, I put on a tier of sections with starters. They do not mass quite so badly as they did at first, but more than they should. They are in the same location that they were in last year, and where they worked the best of any colony I had. Can you give a reason why they do this?

[1. Much depends upon the weather and secretion of nectar. There are other conditions, some of which are not wholly understood, that induce the swarming fever in August.

2. No.

3. As you describe it, doubtless you are now passing through a honey-dearth, one that did not occur (at least as complete) last season. With plenty of room and shade, your bees would never "mass" upon the outside of the hive, if there was nectar in the flowers.—JAMES HEDDON.]

**To give away** a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

## Convention Notices.

The Southern Wisconsin Bee-Keepers' Association will meet at the Court House in Janesville, Tuesday, Aug. 25, 1885, at 10 a. m. JOHN C. LYNCH, Sec.

The Des Moines County, Iowa, Bee-Keepers' Association, will hold its fall meeting at the Court House in Burlington, on Aug. 25, 1885, at 10 a. m. All persons interested in bee-culture are invited to attend. JOHN NAU, Sec.

The Linwood Bee-Keepers' Association will be held at Rock Elm Centre, Wis., on Tuesday, Sept. 1st, at 1 o'clock p. m., in Condit's Hall. All interested are cordially invited to attend, and make the meeting a profitable one. B. J. THOMPSON, Sec.

The Western N. Y. and Northern Pa. Bee-Keepers' Association will meet at Salamanca, N. Y., in Odd Fellows' Hall, on Sept. 1 and 2, 1885. A. D. JACOBS, Sec.

The next meeting of the Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will be held at Rock City, Ill., on Aug. 25, 1885. J. STEWART, Sec.

Owing to a very heavy rain-storm during the forenoon of July 18, the meeting of the Marshall County Bee-Keepers' Association was deferred until Saturday, Aug. 29, 1885, at 10.30 a. m., in the Court House at Marshalltown, Iowa. Subjects: "Fall Management of Bees" and "Care and Sale of Honey." All bee-keepers are invited. It will be a time of rest from other labor, and we hope to have a good meeting. J. W. SANDERS, Sec.

The 4th semi-annual meeting of the Wabash County Bee-Keepers' Association will be held at North Manchester, Ind., on Oct. 10, 1885, in the G. A. R. Hall, Union Block. First session at 10 a. m. All bee-keepers are cordially invited to be present. J. J. MARTIN, Sec.

The next meeting of the "Patsalaga Bee-Keepers' Society" will be held at the residence of the President, Mr. J. R. McLendon, at Ramer, Ala., on Sept. 10, 1885. It is hoped that the membership will be largely increased at this meeting, and that all who can will attend. M. G. RUSHTON, Sec.

The 3rd annual convention of the Iowa State Bee-Keepers' Association will be held on the Fair Grounds at Des Moines, Iowa, during the Fair week. The first meeting will be held at the bee-keepers' tent, on Tuesday, Sept. 8, at 2 p. m.; also there will be a meeting held on each succeeding night, or as often as the convention may desire. Those who wish to do so may bring blankets and make the tent their headquarters, as meals can be procured on the Grounds at reasonable rates. The State Agricultural Society offers liberal premiums on honey, beeswax, etc. Many prominent apiarists are expected to be present. All interested in the production and sale of honey should not fail to attend. WM. GOOS, Sec.

## Bee-Keepers' Badges at Fairs.



We have some ELEGANT RIBBON BADGES, having a rosette and gold Bee, for bee-keepers' use at Fairs, Conventions, etc. Price 50 cents each, by mail, postpaid.

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## Special Notices.

**Make all Money Orders and Postal Notes payable at Chicago, Ills.**—Some country postmasters insist on making such payable at some sub-station of Chicago, but we want them drawn on the main office.

If your wrapper-label reads Aug. 85, please remember that your subscription runs out with this month. Renew at once, so as not to lose any numbers.

**To Correspondents.**—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

For two subscribers for the Weekly BEE JOURNAL (or 8 for the Monthly) for one year, we will present a Pocket Dictionary, and send it by mail, postpaid.

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We want one number each of the BEE JOURNAL of August, 1866—February, 1867. Any one having them to spare will please send a Postal Card. We will pay 50 cents for one copy of each of the two numbers.

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Our rates for two or more copies of the book, "Bees and Honey," may be found on the Book List on the second page of this paper. Also wholesale rates on all books where they are purchased "to sell again."

## CLUBBING LIST.

We supply the **American Bee Journal** one year, and any of the following publications, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.

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The 7 above-named papers	7 50	6 75

All who intend to be systematic in their work in the apiary, should get a copy of the **Apiary Register** and commence to use it. The prices are as follows:

For 50 colonies (120 pages)	\$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

## The National Bee-Keepers' Union.

### CONSTITUTION.

**ARTICLE I.**—This organization shall be known as the "National Bee-Keepers' Union," and shall meet annually, or as often as necessity may require.

**ARTICLE II.**—Its object shall be to protect the interests of bee-keepers, and to defend their rights.

**ARTICLE III.**—The officers of this Union shall consist of a President, five Vice-Presidents, and a General Manager (who shall also be the Secretary and Treasurer), whose duties shall be those usually performed by such officers. They shall be elected by ballot, and hold their several offices for one year or until their successors are elected and installed; blank ballots for this purpose to be mailed to every member by the General Manager.

**ARTICLE IV.**—The officers shall constitute an Advisory Board, which shall determine what action shall be taken by this Union, upon the application of any bee-keepers for defense, and cause such extra assessments to be made upon all the members as may become necessary for their defense.

**ARTICLE V.**—Any person may become a member by paying to the General Manager an Entrance Fee of ONE DOLLAR to the Defense Fund, and an annual fee of 25 cents, for which he shall receive a printed receipt making him a member of this Union, entitled to all its rights and benefits. The annual fee shall be due on the first day of July in each year, and must be paid within 30 days in order to retain membership in this Union.

**ARTICLE VI.**—Donations of any amount may be made at any time to the Defense Fund, in addition to the entrance and membership fees and the regular assessments made upon the members by the Advisory Board.

**ARTICLE VII.**—The Defense Fund shall be used for no other purpose than to defend and protect bee-keepers in their rights, after such cases are approved by the Advisory Board, and shall only be subjected to Drafts regularly made in writing by the Advisory Board.

**ARTICLE VIII.**—The annual fees paid by the members shall become a general fund, from which shall be paid the legitimate expenses of this Union, such as printing, postage, clerk-hire, etc.

**ARTICLE IX.**—Meetings of this Union shall be held at such times and places as

shall be designated by the Advisory Board, or upon the written requisition of ten members.

**ARTICLE X.**—This constitution may be amended by a majority vote of all the members at any time.

### LIST OF MEMBERS AT THIS DATE:

Addenbrooke, W.	Lindsay, L.
Allen, Ransom.	Ludkey, Charles.
Anderson, J. Lee.	Ludloff, K.
Anderson, Wm.	Maddox, W. T.
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Baldwin, B. T.	Mallory, A. H.
Ball, Miss J. M.	Manum, A. E.
Barnes, Wm. M.	Marden, Henry.
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Bitzer, Wm.	McCormick, Emery.
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Hoyle, George H.	Vanhouten, C. W.
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37AB1y

**SYRIO-ALBINO QUEENS.**

**APIS AMERICANA.**—Orders for Queens of the beautiful **SYRIO-ALBINO**, will now be received. Bred by my new method, all are large and fine and perfect. We have made a great discovery in Queen-Rearing, and hereby challenge the production (by natural swarming or otherwise) of Queens that will excel ours in any valuable quality. Isolated 3 miles from other bees. First come, first served. Send for circulars.

**DR. G. L. TINKER,**

New Philadelphia, Ohio.

1A1tf

**\$200,000**

in presents given away. Send us 5 cents postage, and by mail you will get free a package of goods of large value, that will start you in work that will at once bring you in money faster than anything else in America. All about the \$200,000 in presents with each box. Agents wanted everywhere, of either sex, of all ages, for all the time, or spare time only, to work for us at their own homes. Fortunes for all workers absolutely assured. Don't delay. **H. HALLETT & CO.** Portland, Maine.

51A1y

**Muth's Honey Extractor,**

Square Glass Honey Jars, Tin Buckets, Langstroth Bee-Hives, Honey-Sections, etc.

Apply to **CHAS. F. MUTH,** Freeman & Central Ave., CINCINNATI, O.

Send 10c. for Practical Hints to Bee-Keepers.

**Bees and Queens**

**HAVING** purchased all the black bees within a radius of 6 miles, I now claim the **LARGEST ITALIAN APIARY** and best location for rearing **FINE QUEENS** in the State. I will continue to sell warranted Queens at the low price of 75 cents each. Extra selected tested (1885 rearing) \$1.50 each. Three L-frame Nuclei, every frame filled with brood, with selected tested Queen, \$3 each.

Address **JAS. WOOD**, North Prescott, Mass.

29A9t

**NEW ONE-POUND HONEY PAIL.**

**THIS** new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail.

**THOS. G. NEWMAN & SON,** 923 & 925 West Madison St., CHICAGO, ILL.

**Dadant's Foundation Factory**, wholesale and retail. See Advertisement in another column.

**Given's Foundation Press**

**THE GIVEN PRESS** stands in the front rank for manufacturing **FOUNDATION** in **Wired Frames**, as well as foundation for **SECTIONS**. Without a dissenting voice, all of our customers affirm its superiority. Send for Circulars and Samples.

**D. S. GIVEN & CO.,**

1AB1t HOOPESTON, Vermillion Co., ILL.

**HUTCHINSON'S ADVERTISEMENT**

**WE ARE** now making a specialty of rearing fine **ITALIAN QUEENS**. All Queens are bred from the purest and best of mothers, and the cells built in full colonies. We have one of A. I. Root's very best, selected, tested, imported Queens; also quite a number of very superior home-bred Queens from the apiary of "Cyula Linswik;" besides this, we have our own original stock, which was built up from Dadant imported stock, and from Queens obtained from several of our best breeders. We are not trying to see how cheaply we can rear Queens, but what **GOOD** ones we can furnish. No Queens will be sent out that would not be used in the home apiary. Single Queen, \$1.00; six for \$5.00; twelve or more, 75c. each. Tested Queens, \$2.00 each. Full colonies, \$5.00 each. Make money orders payable at Flint. Address

**W. Z. HUTCHINSON,**

30Attf Rogersville, Genesee Co., Mich.

**THE INVERTIBLE HIVE!****INVERTIBLE FRAMES,**

Invertible Surplus Honey Cases, Entrance Feeders, Top and Bottom Feeders, Hive-Lifting Device, Honey Extractors, Wax Extractors, Comb Foundation, etc.

My new Illustrated Catalogue is now ready, and will be mailed to all who may apply for it. Address,

**J. M. SHUOK,**

DES MOINES, IOWA.

10A1y

**WIN**

more money than at anything else by taking an agency for the best selling book out. Beginners succeed grandly. None fail. Terms free. **HALLETT BOOK CO.** Portland, Maine.

51A1y

**Bee-keepers' Supplies,**

Standard Langstroth,

Quinby Standing-Frame,

And all other kinds of Hives,

MADE TO ORDER,

Quinby Smoker a specialty.

I shall supply anything you need in the Apiary. Send for Illustrated Price List.

**W. E. CLARK**, successor to L. C. Root, 7A1y ORISKANY, Oneida County, N. Y.

**Dadant's Foundation Factory**, wholesale and retail. See Advertisement in another column.

**QUEENS by Return Mail!**

AT THE FOLLOWING LOW RATES:

Bred from my **Best Strains of Italians and Albino!**

Untested Queens.....	each	.....	\$ 1 00
" " " " " " " "	1/2 doz	.....	5 50
" " " " " " " "	1 doz	.....	10 00
Warranted " " " " " "	each	.....	1 10
" " " " " " " "	1/2 doz	.....	6 00
" " " " " " " "	1 doz	.....	11 00
Tested " " " " " "	each	.....	2 00
Selected Tested Queens.....	"	.....	2 50

Descriptive Price-List free. Address all orders to

**WM. W. CARY**, - Coleraine, Mass., (Successors to Wm. W. Cary & Son.)

N. B.—On a single order for 50 Queens, we will give **10 per cent. discount** from the above list. 29Attf

**A PRIZE.**

Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All, of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address **TRUE & CO., Augusta, Maine.**

51A1y

**Dadant's Foundation Factory**, wholesale and retail. See Advertisement in another column.

**Bee-Hives, Sections & Honey-Boxes GREAT REDUCTION.**

**DEALERS** and large consumers will find it to their interest to write us for special stocking-up prices—either for present or future delivery.

**G. B. LEWIS & CO.,**

34ABtf WATERTOWN, WIS.

**30 COLONIES of BEES**

for one-hundred dollars, in American hives; or \$3.50 each, singly. They are strong in bees and honey. Syrians and Italians. Safe arrival guaranteed.

33A4t **FAYETTE LEE**, Cokato, Minn.

**FLAT - BOTTOM COMB FOUNDATION,**

high side-walls, 4 to 16 square feet to the pound. Circular and samples free

**J. VAN DEUSEN & SONS,** Sole Manufacturers, Sprout Brook, Mont. Co., N. Y.

**HELP**

for working people. Send 10 cents postage, and we will mail you free, a royal, valuable sample box of goods that will put you in the way of making more money in a few days than you ever thought possible at any business. Capital not required. You can live at home and work in spare time only, or all the time. All of both sexes, of all ages, grandly successful. 50 cents to \$5 easily earned every evening. That all who want work may test the business, we make this unparalleled offer: To all who are not well satisfied we will send \$1 to pay for the trouble of writing us. Full particulars, directions, etc., sent free. Immense pay absolutely sure for all who start at once. Don't delay. Address **STINSON & CO.** Portland, Maine.

51A1y

**Fruit-Farm & Apiary**

FOR SALE CHEAP!

**96 ACRES**, hill-land, 1/2 well-stocked with apples, peaches, pears, plums, quinces, grapes, and small fruit, in fine bearing condition. The remainder in pasture, grass, grain, etc. Apiary contains **140 ITALIAN COLONIES** in Langstroth hives. Bee-house and all modern appliances for apiculture, in as good location for bees and honey as can be found. Good 10-room house, beautifully located, commanding a view of the city, river and surrounding country. New barn and out-buildings, cistern, never-failing springs, etc. Reason for selling—age and ill-health.

33A6t

**S. A. STILLMAN**, LOUISIANA, MO.

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